Ribbon SBC Core R8.1 Interop with Avaya CM/SM in Access Deployment : Interoperability Note

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Interoperable Vendors

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Scope / Non-Goals

This is an interoperability Note - it is ***not*** intended to be a full Configuration Guide / Interoperability Guide.

It is an informational document that briefs on the interoperability achieved between Ribbon products and various third party products.

This document focuses on the feasibility aspects in providing a Ribbon interoperable solution instead of the actual configuration involved for the Ribbon and Third Party product(s).

Details of the test setup used are included, along with full details of the Ribbon and Third party products, including details of any hardware and software versions used.

The document also details results of the interoperability, and any notes or caveats related to the inter-working between the products.

Audience

This document is open for all telecom-aware professionals to read, including Ribbon customers and partners. It provides high-level information of the interoperable solution provided.

Product and Device Details

The sample configuration uses the following equipment and software:

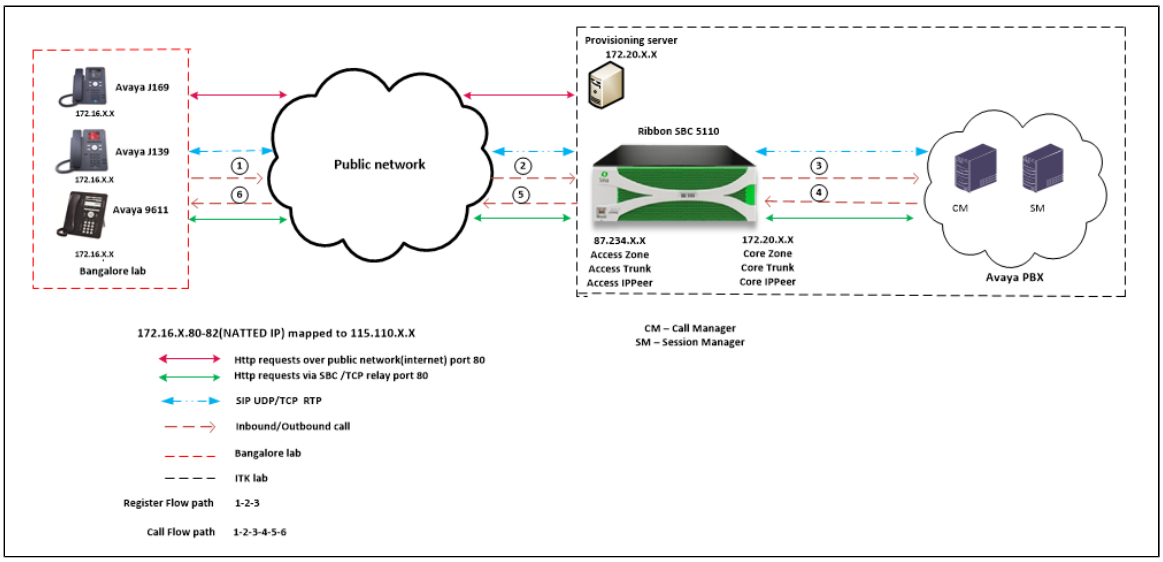
Table 1: Requirements

Product	Equipment	Software Version
Ribbon Communications	SBC Core	V08.01.00-R000
Avaya	Avaya Call Manager	6.3
	Avaya Session Manager	6.3

Network Topology Diagram

Interoperability Test Lab Topology

The following diagram depicts the IOT high level architecture covering call flows and overall topology.



Avaya phones register to Avaya PBX via Ribbon SBC.

The interoperability testing used the following Avaya phone models:

- Avaya J139
- Avaya J169
- Avaya 9611G

The preceding Network diagram mentions registration, HTTP messages path, and inbound and outbound call paths.

Interoperability Overview

In Brief

This document discusses the implementation of the access deployment of Avaya phones with Avaya CM/SM via Ribbon SBC Core.

Call Flow

Avaya phones (Avaya J139,J169 and 9611G) are registered to Avaya CM via Ribbon SBC Core.

- As soon as the Avaya phones boot up, they communicate with the Avaya provisioning server (172.20.x.x) over HTTP port 80.
- The phone downloads the "J100Supgrade.txt" and "46xxsettings-sip.txt" files. The phone later sends the REGISTER message followed by SUBSCRIBE to Avaya PBX.
- Once the REGISTER and SUBSCRIBE are successful, the phone sends PPM messages to Avaya PBX over HTTP port 80 via Ribbon SBC.
- Once all the 3 Avaya phones are registered successfully, the call is made between the registered Avaya phones.
- All SIP messages like REGISTER, SUBSCRIBE and INVITE go via Ribbon SBC Core.

Highlights

1. Avaya phones were registered to Avaya CM through Ribbon SBC Core as part of the hosted deployment.
2. Avaya phones send an off-hook INVITE. In order for the SBC to relay the off-hook INVITE, a ghost profile needs to be configured.
3. TCP Relay needs to be configured in SBC so that it relays the http traffic sent from the Avaya phone.
4. Media NAT should be configured in SBC for the media to work between Avaya phones and SBC.

> For information regarding SBC Core configuration, refer to the product documentation on https://doc.rbbn.com/

Supplementary Services and Features Coverage

The following checklist depicts the set of services and features covered through the configuration defined in this Interop Guide.

Sr.No.	Supplementary Features/Services	Coverage
1	Basic Registration over UDP	✓
2	Basic Call Setup	✓
3	Basic Call Termination	✓
4	Basic Subscription over UDP	✓
5	Call Hold/Unhold	✓
6	Call Forward All (CFU)	✓

Legend

✓	Supported
✗	Not Supported
N/A	Not Applicable

Support

For any support related queries about this guide, please contact your local Ribbon representative, or use the details below:

- Sales and Support: 1-833-742-2661
- Other Queries: 1-877-412-8867
- Website: https://ribboncommunications.com/about-us

References

For detailed information about Ribbon products and solutions, please visit: https://ribboncommunications.com/products.

For detailed information about Avaya products and solutions, please visit: https://www.avaya.com/.

Conclusion

This Interoperability Note describes a successful configuration covering Avaya PBX interop involving the SBC Core. All the necessary features and serviceability aspects stand covered as per the details provided in this interoperability document.